

LISTING OF THE CLAIMS

The following listing, if entered, replaces all prior versions of the claims in the present application.

1. (Currently Amended) A method comprising:
 receiving a packet, the packet comprising a multicast destination address,
wherein the receiving is performed by a first line card in a first virtual network device sub-unit; and
 sending a copy of the packet to a second virtual network device sub-unit via a virtual network device link, wherein
 the virtual network device link couples ~~two~~ the first virtual network device sub-unit and the second virtual network device ~~[[sub-units]]~~ sub-unit,
 the ~~two~~ first virtual network device sub-unit and the second virtual network device ~~[[sub-units]]~~ sub-unit are configured to operate as a single virtual network device within a network,
 the virtual network device is configured to perform Layer 2 forwarding to forward the packet to ~~other layers~~ one or more network devices within ~~[[a]]~~ the network, and
 the sending comprises sending at most one copy of the packet from one virtual network device sub-unit to another via the virtual network device link.

2. (Cancelled)

3. (Previously Presented) The method of claim 1, further comprising:
 receiving a second packet via the virtual network device link, the second packet comprising a second multicast destination address; and
 replicating the second packet for each of a plurality of outgoing VLANs (Virtual Local Area Networks) associated with the second multicast destination address.

4. (Original) The method of claim 3, further comprising:
sending at least one copy of the second packet to each line card that includes an
interface associated with one of the outgoing VLANs.
5. (Original) The method of claim 3, further comprising:
sending at least one copy of the second packet to each line card that includes an
interface associated with an incoming VLAN, wherein
the second packet is being conveyed in the incoming VLAN.
6. (Original) The method of claim 3, further comprising:
sending at most one copy of the second packet to each line card that includes an
interface associated with one of the outgoing VLANs.
7. (Original) The method of claim 3, further comprising:
not sending any copy of the second packet via an uplink interface coupled to a
virtual network device bundle.
8. (Previously Presented) The method of claim 1, further comprising:
receiving a third packet via the virtual network device link, the third packet
comprising a unicast destination address; and
performing an egress lookup for the third packet in response to the receiving the
third packet.
9. (Original) The method of claim 8, wherein
a header associated with the third packet is also received via the virtual network
device link,
the header comprises a destination identifier.
10. (Original) The method of claim 9, further comprising:
sending the third packet and the header to another line card if a non-primary entry
corresponding to the unicast destination address is found during the egress
lookup.

11. (Currently Amended) The method of claim 9, further comprising:
 if a primary entry corresponding to the unicast destination address is found during
 the egress lookup:
 sending the third packet from an interface on the first line card identified
 by the primary entry.
12. (Original) The method of claim 11, further comprising:
 sending a notification via the virtual network device link if the destination
 identifier comprised in the header does not match a destination identifier
 comprised in the primary entry, wherein
 the notification identifies the unicast destination address as corresponding
 to the destination identifier comprised in the primary entry.
13. (Currently Amended) A method, comprising:
 receiving a packet via a virtual network device link, the packet comprising a
 unicast destination address, wherein
 the virtual network device link couples ~~two~~ a first virtual network
device sub-unit and a second virtual network device [[sub-units]]
sub-unit, and wherein
 the ~~two~~ first virtual network device sub-unit and the second
 virtual network device [[sub-units]] sub-unit are
 configured to operate as a single virtual network device
within a network, and
the virtual network device is configured to perform Layer 2
forwarding to forward the packet to one or more
network devices with the network; and
 performing an egress lookup for the packet in response to the receiving the
 packet, wherein
 the performing the egress lookup in a lookup table on a first line card
 comprises allocating a non-primary entry corresponding to a
 source address of the packet in the lookup table, if an entry

corresponding to the source address has not already been allocated, wherein the non-primary entry indicates a second line card.

14. (Original) The method of claim 13, wherein a header associated with the packet is also received via the virtual network device link,
the header comprises a destination identifier.

15. **(Currently Amended)** The method of claim 14, further comprising:
sending the packet and the header to ~~another~~ **the second** line card if ~~[[a]]~~ **the** non-primary entry corresponding to the unicast destination address is found during the egress lookup.

16. **(Currently Amended)** The method of claim 14, further comprising:
if a primary entry corresponding to the unicast destination address is found during the egress lookup:
sending the packet from an interface **on the first line card** identified by the primary entry.

17. (Original) The method of claim 16, further comprising:
sending a notification via the virtual network device link if the destination identifier comprised in the header does not match a destination identifier comprised in the primary entry, wherein
the notification identifies the unicast destination address as corresponding to the destination identifier comprised in the primary entry.

18. (Original) The method of claim 16, wherein
the packet is only sent from the interface if the interface is not comprised in an uplink interface bundle.

19. (Previously Presented) The method of claim 13, further comprising:
receiving a second packet, the second packet comprising a multicast destination
address; and
sending at most one copy of the second packet to one of the two virtual network
device sub-units via the virtual network device link.

20. (Original) The method of claim 19, further comprising:
receiving a third packet via the virtual network device link, the third packet
comprising a second multicast destination address; and
replicating the third packet for each of a plurality of outgoing VLANs (Virtual
Local Area Networks) associated with the second multicast destination
address.

21. (Original) The method of claim 20, further comprising:
sending at least one copy of the third packet to each line card that includes an
interface associated with one of the outgoing VLANs.

22. (Original) The method of claim 20, further comprising:
sending at least one copy of the third packet to each line card that includes an
interface associated with an incoming VLAN, wherein
the third packet is being conveyed in the incoming VLAN.

23. (Original) The method of claim 20, further comprising:
sending at most one copy of the third packet to each line card that includes an
interface associated with one of the outgoing VLANs.

24. (Currently Amended) A method comprising:
 receiving a packet via a virtual network device link;
 performing one of an ingress lookup and an egress lookup **in a lookup table on a first line card** for the packet, wherein
 the ingress lookup is performed for the packet if the packet includes a multicast destination address;
 the egress lookup is performed for the packet if the packet includes a unicast destination address, wherein
 the performing the egress lookup comprises allocating a non-primary entry corresponding to a source address of the packet in the lookup table, **if an entry corresponding to the source address has not already been allocated, wherein the non-primary entry indicates a second line card**; and
 a primary ~~lookup-table~~ entry can be allocated **in the lookup table** in response to an ingress lookup but not in response to an egress lookup, **wherein the primary entry indicates an interface on the first line card.**
25. (Original) The method of claim 24, wherein
 the packet includes a multicast destination address, and
 the method further comprises:
 replicating the packet for each of a plurality of outgoing VLANs associated with the multicast destination address.
26. (Original) The method of claim 25, further comprising:
 sending at least one copy of the packet to each line card that includes an interface associated with one of the outgoing VLANs.

27. (Original) The method of claim 25, further comprising:
sending at most one copy of the packet to each line card that includes an interface
associated with one of the outgoing VLANs.
28. (Original) The method of claim 25, further comprising:
not sending any copy of the packet via the virtual network device link.
29. (Original) The method of claim 25, further comprising:
not sending any copy of the packet via an uplink interface comprised in a uplink
interface bundle.
30. **(Currently Amended)** The method of claim 24, wherein
a header associated with the packet is also received via the virtual network device
link,
the header comprises a destination identifier, and
the packet comprises the unicast destination address, and
the method further comprises:
sending the packet and the header to ~~another~~ the second line card if a
non-primary entry corresponding to the unicast destination address
is found during the egress lookup.
31. **(Currently Amended)** The method of claim 30, further comprising:
if a primary entry corresponding to the unicast destination address is found during
the egress lookup:
sending the packet from an interface identified on the first line card by
the primary entry corresponding to the unicast destination
address.

32. (Currently Amended) The method of claim ~~[[30]]~~ **31**, further comprising:

sending a notification via the virtual network device link if a destination identifier comprised in the header does not match a destination identifier comprised in the primary entry **corresponding to the unicast destination address**, wherein

the notification identifies the unicast destination address as corresponding to the destination identifier comprised in the primary entry **corresponding to the unicast destination address**.

33. (Original) The method of claim 30, wherein the packet is only sent from the interface if the interface is not comprised in a uplink interface bundle.

34. (Currently Amended) A system comprising:

an interface to a virtual network device link, wherein

the interface is configured to receive a packet,

the virtual network device link couples ~~two~~ **a first virtual network device sub-unit and a second** virtual network device ~~[[sub-units]]~~ **sub-unit**, and

the ~~two~~ **first virtual network device sub-unit and the second** virtual network device ~~[[sub-units]]~~ **sub-unit** are configured to operate as a single virtual network device **within a network, and**

the virtual network device is configured to perform Layer 2 forwarding to forward the packet to one or more network devices with the network; and

a distributed forwarding module coupled to the interface, wherein

the distributed forwarding module is configured to ~~forward~~ **perform one of an ingress lookup and an egress lookup in a lookup table on a first line card for** the packet, **wherein**

the distributed forwarding module is configured to perform an ingress lookup for the packet if the packet includes a multicast destination address, and

the distributed forwarding module is configured to perform an egress lookup for the packet if the packet includes a unicast destination address, **wherein performance of the egress lookup comprises allocating a non-primary entry corresponding to a source address of the packet in the lookup table, if an entry corresponding to the source address has not already been allocated, wherein the non-primary entry indicates a second line card; and a primary entry can be allocated in the lookup table in response to an ingress lookup but not in response to an egress lookup, wherein the primary entry indicates an interface on the first line card.**

35. (Cancelled)

36. (Original) The system of claim 34, wherein the packet includes a multicast destination address, and the distributed forwarding module is configured to replicate the packet for each of a plurality of outgoing VLANs associated with the multicast destination address.

37. **(Currently Amended)** The system of claim 34, further comprising: one ~~[[of]]~~ **or** more line cards, wherein the distributed forwarding module is configured to send at least one copy of the packet to each of the one or more line cards that includes an interface associated with one of the outgoing VLANs.

38. (Previously Presented) The system of claim 34, further comprising:
one or more line cards, wherein
the distributed forwarding module is configured to send at most one copy of the
packet to each line card that includes an interface associated with one of
the outgoing VLANs.
39. (Previously Presented) The system of claim 34, further comprising:
a second interface configured to receive a second packet, wherein
the second packet comprises a second multicast address, and
the distributed forwarding module is configured to send at most one copy
of the second packet via the virtual network device link.
40. (**Currently Amended**) The system of claim 34, wherein
a header associated with the packet is also received via the virtual network device
link,
the header comprises a destination identifier, and
the packet comprises the unicast destination address, and
the distributed forwarding module is configured to send the packet and the header
to ~~another~~ the second line card if a non-primary entry corresponding to
the unicast destination address is found during the egress lookup.
41. (**Currently Amended**) The system of claim 40, further comprising:
a second interface on the first line card, wherein
the distributed forwarding module is configured to send the packet from
the second interface if a primary entry corresponding to the unicast
destination address is found during the egress lookup and if the
primary entry corresponding to the unicast destination address
identifies the second interface.
42. (**Currently Amended**) The system of claim ~~[[40]]~~ 41, wherein

the distributed forwarding module is configured to send a notification via the virtual network device link if a destination identifier comprised in the header does not match a destination identifier comprised in the primary entry **corresponding to the unicast destination address**, and the notification identifies the unicast destination address as corresponding to the destination identifier comprised in the primary entry **corresponding to the unicast destination address**.

43. (Currently Amended) A system comprising:
 means for receiving a packet, the packet comprising a multicast destination address, **wherein a first line card in a first virtual network device comprises the means for receiving;** and
 means for sending a copy of the packet to a **second** virtual network device sub-unit via a virtual network device link, wherein
 the virtual network device link couples ~~two~~ **the first and the second** virtual network device sub-units,
 the ~~two~~ **first and the second** virtual network device sub-units are configured to operate as a single virtual network device **within a network**,
 the virtual network device is configured to **perform Layer 2 forwarding to** forward the packet to ~~other layers~~ **one or more network devices** within ~~[[a]]~~ **the** network, and
 the means for sending comprises sending at most one copy of the packet from one virtual network device sub-unit to another via the virtual network device link.

44. (Cancelled)

45. (Previously Presented) The system of claim 43, further comprising:
 means for receiving a second packet via the virtual network device link, the second packet comprising a second multicast destination address; and

means for replicating the second packet for each of a plurality of outgoing VLANs (Virtual Local Area Networks) associated with the second multicast destination address.

46. (Original) The system of claim 45, further comprising:
means for sending at least one copy of the second packet to each line card that includes an interface associated with one of the outgoing VLANs.

47. (Original) The system of claim 45, further comprising:
means for sending at least one copy of the second packet to each line card that includes an interface associated with an incoming VLAN, wherein the second packet is being conveyed in the incoming VLAN.

48. (Original) The system of claim 45, further comprising:
means for sending at most one copy of the second packet to each line card that includes an interface associated with one of the outgoing VLANs.

49. (Previously Presented) The system of claim 43, further comprising:
means for receiving a third packet via the virtual network device link, the third packet comprising a unicast destination address; and
means for performing an egress lookup for the third packet in response to the receiving the third packet.

50. **(Currently Amended)** A system comprising:
means for receiving a packet via a virtual network device link, the packet comprising a unicast destination address, wherein
the virtual network device link couples ~~two~~ **a first virtual network device sub-unit and a second** virtual network device **[[sub-units]]** **sub-unit**, and wherein
the ~~two~~ **first virtual network device sub-unit and the second** virtual network device **[[sub-units]]** **sub-unit** are

configured to operate as a single virtual network device
within a network, and
the virtual network device is configured to perform Layer 2
forwarding to forward the packet to one or more
network devices with the network; and

means for performing an egress lookup for the packet in a lookup table on a first
line card in response to receipt of the packet, wherein

the means for performing the egress lookup comprises means for
allocating a non-primary entry corresponding to a source address
of the packet in the lookup table, if an entry corresponding to the
source address has not already been allocated, wherein the
non-primary entry indicates a second line card.

51. (Original) The system of claim 50, wherein
a header associated with the packet is also received via the virtual network device
link,
the header comprises a destination identifier obtained by performing an ingress
lookup for the packet.

52. (Currently Amended) The system of claim 51, further comprising:
means for sending the packet and the header to ~~another~~ the second line card if
[[a]] the non-primary entry corresponding to the unicast destination
address is found during the egress lookup.

53. (Currently Amended) The system of claim 51, further comprising:
means for sending the packet from an interface on the first line card identified
by a primary entry, if the primary entry corresponding to the unicast
destination address is found during the egress lookup.

54. (Original) The system of claim 53, further comprising:

means for sending a notification via the virtual network device link if the destination identifier comprised in the header does not match a destination identifier comprised in the primary entry, wherein the notification identifies the unicast destination address as corresponding to the destination identifier comprised in the primary entry.

55. (Original) The system of claim 53, wherein the packet is only sent from the interface if the interface is not comprised in an uplink interface bundle.

56. (Previously Presented) The system of claim 51, further comprising: means for receiving a second packet, the second packet comprising a multicast destination address; and means for sending at most one copy of the second packet to one of the two virtual network device sub-units via the virtual network device link.

57. (Currently Amended) A computer readable medium storing a program, the program comprising program instructions executable to:

detect reception of a packet **by a first line card in a first virtual network device sub-unit**, the packet comprising a multicast destination address; and

send a copy of the packet to a **second** virtual network device sub-unit via a virtual network device link, wherein

the virtual network device link couples ~~two~~ **the first virtual network device sub-unit and the second** virtual network device **[[sub-units]] sub-unit**,

the ~~two~~ **first virtual network device sub-unit and the second** virtual network device **[[sub-units]] sub-unit** are configured to operate as a single virtual network device **within a network**,

the virtual network device is configured to **perform Layer 2 forwarding to** forward the packet to ~~other layers~~ **one or more network devices** within **[[a]] the** network, and

sending comprises sending at most one copy of the packet from one virtual network device sub-unit to another via the virtual network device link.

58. (Cancelled)

59. (Previously Presented) The computer readable medium of claim 57, wherein the program instructions are further executable to:
detect reception of a second packet via the virtual network device link, the second packet comprising a second multicast destination address; and
replicate the second packet for each of a plurality of outgoing VLANs (Virtual Local Area Networks) associated with the second multicast destination address.

60. (Original) The computer readable medium of claim 59, wherein the program instructions are further executable to:
send at least one copy of the second packet to each line card that includes an interface associated with one of the outgoing VLANs.

61. (Original) The computer readable medium of claim 59, wherein the program instructions are further executable to:
send at least one copy of the second packet to each line card that includes an interface associated with an incoming VLAN, wherein
the second packet is being conveyed in the incoming VLAN.

62. (Original) The computer readable medium of claim 59, wherein the program instructions are further executable to:
- send at most one copy of the second packet to each line card that includes an interface associated with one of the outgoing VLANs.
63. (Previously Presented) The computer readable medium of claim 57, wherein the program instructions are further executable to:
- detect reception of a third packet via the virtual network device link, the third packet comprising a unicast destination address; and
 - perform an egress lookup for the third packet in response to the receiving the third packet.

64. (Currently Amended) A computer readable medium storing a program, the program comprising program instructions executable to:

detect reception of a packet via a virtual network device link, the packet comprising a unicast destination address, wherein the virtual network device link couples ~~two~~ **a first virtual network device sub-unit and a second** virtual network device **[[sub-units]] sub-unit**, and wherein the ~~two~~ **first virtual network device sub-unit and the second** virtual network device **[[sub-units]] sub-unit** are configured to operate as a single virtual network device **within a network, and** **the virtual network device is configured to perform Layer 2 forwarding to forward the packet to one or more network devices with the network**; and

perform an egress lookup for the packet **in response to receipt of the packet**, wherein performing the egress lookup **in a lookup table on a first line card** comprises allocating a non-primary entry corresponding to a source address of the packet in the lookup table, **if an entry corresponding to the source address has not already been allocated, wherein the non-primary entry indicates a second line card**.

65. (Original) The computer readable medium of claim 64, wherein a header associated with the packet is also received via the virtual network device link, the header comprises a destination identifier.

66. (Currently Amended) The computer readable medium of claim 65, wherein the program instructions are further executable to:
send the packet and the header to ~~another~~ the second line card if a non-primary entry corresponding to the unicast destination address is found during the egress lookup.

67. (Currently Amended) The computer readable medium of claim 65, wherein the program instructions are further executable to:
send the packet from an interface on the first line card identified by a primary entry, if the primary entry corresponding to the unicast destination address is found during the egress lookup.

68. (Original) The computer readable medium of claim 67, wherein the program instructions are further executable to:
send a notification via the virtual network device link if the destination identifier comprised in the header does not match a destination identifier comprised in the primary entry, wherein
the notification identifies the unicast destination address as corresponding to the destination identifier comprised in the primary entry.

69. (Original) The computer readable medium of claim 67, wherein the packet is only sent from the interface if the interface is not comprised in an uplink interface bundle.

70. (Original) The computer readable medium of claim 65, wherein the program instructions are further executable to:
detect reception of a second packet, the second packet comprising a multicast destination address; and
send at most one copy of the second packet to a virtual network device sub-unit via a virtual network device link, the virtual network device sub-unit comprised in a virtual network device.